



## Hanford Site Beryllium Program Corrective Action Plan Update

**Presented to: BHSC Spring 2011 Meeting**

**Presented by:**  
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**Scott Seydel** is currently employed as a Senior Industrial Hygienist by CH2M HILL Plateau Remediation Company. He was a member of the development team for the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) and is currently the chair of the Hanford Site CBDPP Committee. Prior to his current job, Scott was the manager of Fluor Hanford's Industrial Hygiene and Chemical Management programs. Scott is a Certified Industrial Hygienist and is a professional member of the American Society of Safety Engineers. Scott has 20 years of environmental, health, and safety experience in a variety of industries, including environmental remediation, semiconductor fabrication, and aircraft manufacturing.

**Shad Smith** is a Plumber/Pipefitter at the 222-S Laboratory. He has worked at the Hanford Site for 17 years. He is also a Lead Instructor for the Beryllium Worker training conducted at the HAMMER facility.

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## May 2009 – Aug 2010

<b>May 2009</b>	<b>Hanford Site CBDPP implemented</b>
<b>Feb 2010</b>	<b>Concerns regarding implementation raised</b>
<b>Apr 2010</b>	<b>DOE/Office of Health, Safety and Security (HSS) initiated review of Hanford Site CBDPP</b>
<b>Jun 2010</b>	<b>HSS issued report and identified:</b> <ul style="list-style-type: none"><li>• 4 Findings</li><li>• 12 Opportunities for Improvement</li></ul>
<b>Aug 2010</b>	<b>Hanford submitted a Corrective Action Plan to HSS that identified 255 corrective actions</b>



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## Aug 2010 – Nov 2010

- |          |  |
|----------|--|
| Aug 2010 | Contractors began working corrective actions<br>“Teaming” with the Hanford Atomic Metal<br>Trades Council (HAMTC) and the Beryllium<br>Awareness Group (BAG) on corrective actions |
| Nov 2010 | Verification reviews identified: <ul style="list-style-type: none"><li>• Inconsistencies in products</li><li>• Lack of integrated approach</li></ul>                               |



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### Different approach was needed because:

- Concerns were expressed (e.g., stakeholders, contractors, USDOE)
  - Perception that focus was on schedule – not quality
  - Realization the issues were much more complex than anticipated (e.g., contractual structure)
  - Verification reviews revealed inconsistencies in contractor submittals
  - Evolution of stakeholder expectations (e.g., lack of defined expectations)
- Lack of clarity regarding stakeholder expectations for CAP actions and the CAP process (e.g., link between actions & consolidated CBDPP)
- CAP actions did not accurately capture all issues needed to address underlying systemic issues

*“It would not have mattered how much work was put into the Beryllium CAP actions – there was not a clearly defined vision of where we were headed and there was no map explaining how we would get there...”*

## Dec 2010

Dec 2010      Facilitator assigned to Beryllium CAP

Recognition that a different approach was needed

*“Everyone is making auto parts and  
no one is talking about what kind of car  
it is or how it should be assembled”*

Need to address the lack of common vision & alignment

*Systems Approach to Consensus* developed

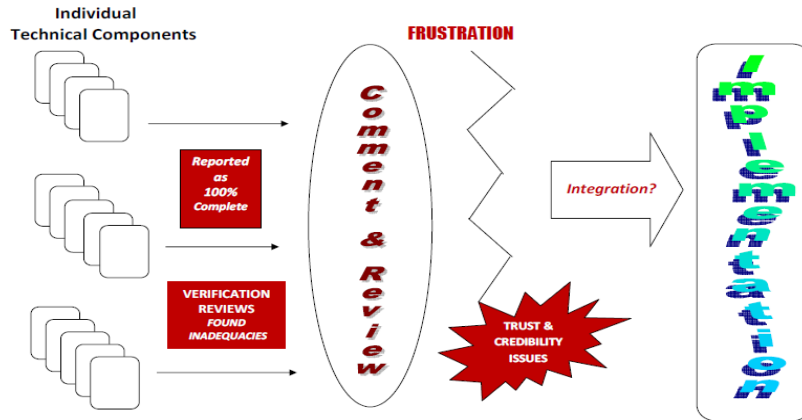


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# Prior BeCAP Process

## PREVIOUS -- Beryllium Corrective Action Process



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## Jan 2011

Jan 5 2011

**Systems Approach to Consensus outlined new success factors (by priority):**

- Best-in-class beryllium program to protect the workers
- Consensus amongst stakeholders
- Meet CAP deliverables on time

**Success factors shifted focus from schedule to focus on quality and consensus**

Jan 11 2011

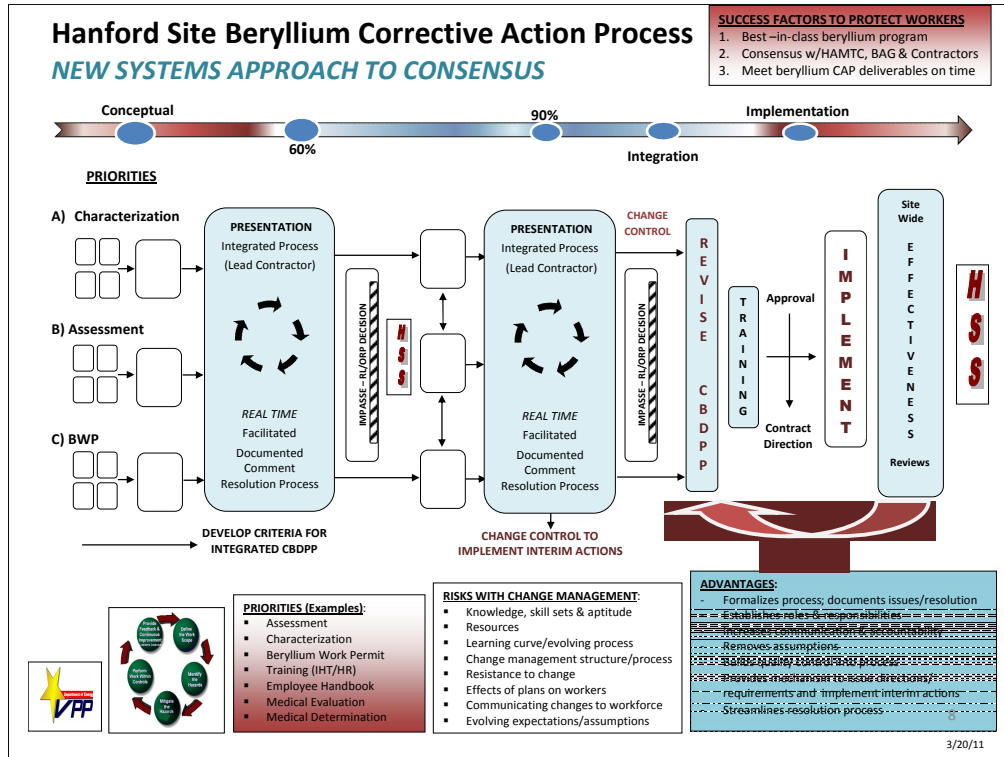
**EM-1 approved the Systems Approach to Consensus**



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Stakeholders include:

- Hanford Atomic Metal Trades Council (HAMTC)
- Beryllium Awareness Group – a group of current and former *affected* workers
- Hanford site contractors
- U. S. Department of Energy (Richland Operations Office and Office of River Protection)



ALL – JULIE, SHAD, DAVE, and SCOTT

The Beryllium CAP Systems Approach to Consensus incorporates:

- System Management principles
- Project Management principles
- ISMS Principles (Define Scope, Analyze Hazards, Develop and Implement Controls, Perform Work within Controls, Provide Feedback for Improvement)
- Voluntary Protection Program Principles (Hazard Prevention and Control, Worksite Analysis, Training, Management Commitment, Worker involvement)
- Organizational Development Guiding Principles - promotes ultimate high performance of people and effective organizational systems: Integrity, Commitment, Empowerment, Versatility, Renewal, and Integration
- Mediation Principles - Facilitates Communications, Promotes Understanding, Neutral/Impartial, Focuses on Interests, Issue Specific, Future-Focused, Puts Disagreements in the Past, Promotes Ownership & Responsibility and Seeks Creative Solutions

DAVE

Established Team Values: Integrity, Sincerity, Honesty, Truth, and "No Lemmings"

Defined Consensus: Everyone doesn't have to like it – but can live with it



# Jan 2011

**Jan 19 2011 First week of consolidated team meetings held with all stakeholders**

- Hanford Atomic Metal Trades Council (HAMTC)
- Beryllium Awareness Group (BAG)
- Hanford Site Contractors
- U. S. DOE – Richland Operations Office & Office of River Protection

**Notification of re-baselining of Beryllium CAP**

**Contract relief from schedule**

**Team members signed behavioral commitment**



SHAD

## **The benefit**

- Forced all parties to address concerns and frustrations that existed
- Brought alignment around the vision for the end products and clarified the vision for the CAP

## **The Initial Meeting:**

- Was extremely time intensive (35+ team members in a room) to bring the team together
- Original time estimate for team building was too optimistic (1.5 days scheduled – ended up being 3 days)
  - High level of passion (and emotion)
  - Significant trust issues due to historical experiences
  - Drove the need to establish relationship and work on behavior
  - Helped lay the foundation for defining expectations for products and the process
- Foundation was established for the teams because of the crucial conversations that occurred
- Now the team member have:
  - High level of commitment
  - High level of engagement
  - Effective interactions (actually talk to one another and working collectively toward a common goal)

**BERYLLIUM CORRECTIVE ACTION PROGRAM BEHAVIORAL COMMITMENT OBSERVATION FORM**

		RATING	POSITIVE ATTRIBUTES	OPPORTUNITIES FOR IMPROVEMENT
1	<b>I will create a safe environment</b> (focus on issues, not person)			
2	<b>I will actively listen to others</b> (attentive, focused, present in moment – no distractions)			
3	<b>I will ask</b> (for clarity/understanding, no assumptions, give benefit of doubt, verify communication)			
4	<b>I will actively participate</b> (openly share information/ideas; represent entity to best of ability)			
5	<b>I will treat everyone with the same intent regarding of position or status</b> (check ego door, empathetic, constructive, non-judgmental)			
6	<b>I will create a learning environment</b> (learn from mistakes, prevent recurrence; admit when wrong; promote innovation and make improvements)			
7	<b>I will be courteous and respectful</b> (acknowledge emotions, lack of defensiveness)			
8	<b>I will take the time to understand issues</b> (explain basis for what is agreed to)			
9	<b>I will support decisions</b> (aid others, ask for assistance, produce)			
10	<b>I will be open and honest</b> (act based on facts, flexible, work for greater good)			
11	<b>I will keep focused on the goal</b> (protect past, present and future workers)			
12	<b>I will provide and solicit feedback.</b>			
13	<b>I believe this is an important task</b> (bring honor/passion, respect different experiences others bring with them)			

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•**Observation Form**

- Because we are working with so many diverse personalities, we developed a measurement tool for behaviors
- Self-enforceable in a non-threatening, proactive manner
- At every team meeting, one person is assigned as an observer – this person completes the form
- Feedback is provided real-time on positive attributes and opportunities for improvement
- This reinforces the behavioral commitments we all signed up for

**Established Behavioral Commitment:**

•13 key behaviors that defines how team members will interact

- **I will create a safe environment** (focus on issues, not person)
- **I will actively listen to others** (attentive, focused, present in moment – no distractions)
- **I will ask** (for clarity/understanding, no assumptions, give benefit of doubt, verify communication)
- **I will actively participate** (openly share information/ideas; represent group to best of ability)
- **I will treat everyone with the same intent regardless of position or status** (check ego at the door, empathetic, constructive, non-judgmental)
- **I will create a learning environment** (learn from mistakes, prevent recurrence; admit when wrong; promote innovation and make improvements)
- **I will be courteous and respectful** (acknowledge emotions, lack of defensiveness)
- **I will take the time to understand issues** (explain basis for what is agreed to)
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• **Team was given tools to resolve “pinches” and “crunches”**

- Provided clear ways to:
  - identify when issues arise
  - ways to engage others in respectful discussions to resolve the issues
- Provided common language – everyone understands what is meant when these words are used

## Feb 2011

Feb 2011

**Product description development begins**

- Began to clearly identify the needs and wants from all stakeholders
- Clearly defined outcomes/deliverables
- Teams established



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# Example Product Description

**Beryllium Work Permit (BWP)** Lead – Rodney Robinson, WCH /HAMTC – Larry Sherman

*Develop a process to identify, document and communicate hazards and controls associated with performing beryllium activities. This process should include:*

- Hazard assessment form and job specific beryllium work permit as one document
- Roles and responsibilities
- Identification of the corresponding baseline beryllium inventory
- Instructions for completing the hazard assessment and BWP form, handling intrusive work and dust producing activities, and selecting proper barriers
- Requirements for conducting sampling and posting of results, pre-job briefings, and inclusion in the work packages
- Acknowledgement/BWP Review Record
- Proposed language for CBDPP revision

This product should include an explanation of how this specifically addresses the following corrective actions:

- F-4.3.3: Reinforce the need to establish job-specific BWPs when job-specific controls are needed and when some controls specified on an applicable standing BWP are not applicable.



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**Product Categories**  
 •Baseline Beryllium Inventory  
 •Characterization  
 •Hazard Communication  
 •Training  
 •Work Planning & Control  
 •Medical Surveillance  
 •Worker Benefits  
 •Performance Feedback  
 •Other

## Industrial Hygiene Products:

- Baseline Beryllium Inventory
  - Assessment Process
  - Data Management
- Characterization
  - Characterization Process
  - Exposure Monitoring
  - Periodic Surface Sampling
  - Sampling of Affected Workers and Work Locations
- Hazard Communication
  - Beryllium Work Permit
  - Current Employees Notification
  - Hanford Site Visitor Orientation Booklet

**Training Products**  
 •Beryllium Associated Worker Training  
 •Beryllium Worker Training  
 •H/HT Training  
 •PIC/Planner/Supervisor/ Manager Training  
 •Risk Communication  
 •Beryllium Employee Job Task Analysis Requirements  
 •Training Determination/Review Process  
 •All-Hands Awareness Meeting  
 •Hanford Site Orientation – Training  
 •Medical Service Provider Counseling  
 •Responsible Employer  
 •Training Matrix

**Medical Surveillance Categories**  
 •Work Place Monitoring  
 •Beryllium Registry  
 •Medical Evaluations  
 •Beryllium Work History  
 •Medical Service Provider Staffing  
 •Use of Assessment and Characterization Data  
 •Summary of Voluntary Medical Surveillance Program  
 •Medical Clearance and Restriction Language – Communication Process

## Accomplishments to Date

- **Developed detailed product descriptions for over 95% of the CAP deliverables (clarity around expectations)**
- **Clarified process for approval and implementation**
- **Developed Phase I Schedule**
  - prioritized based on predecessor events
- **Established effective working teams**
  - Active engagement
  - Ownership
  - High level of commitment
- **Began to monitor observable behaviors**
- **Finalized agreement on change control mechanism**



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- Had to fight the desire to “quit talking and do something”
- Importance of schedule
- Resource loading
- Realistic

## What Is Next?

- Identify Phase II priorities
- Resource load Phase I and II schedules
- Develop a Phase I fully integrated schedule
- Complete product development in product teams
- Team presentations (beginning April 12)
  - All deliverables **MUST** go through the consensus process unless agreed to by all parties

<http://www.hanford.gov/page.cfm/Beryllium>



JULIE

**Continue completing actions that do not require routing through approval process**

**Some products are completed or nearing completion**

- beryllium all hands meetings
- pilot sampling

**Many actions will be complete by the end of the fiscal year**